Report on Public Hearings

Simplot Canada Ltd.
Potato Processing Plant, Portage la Prairie, Manitoba

City of Portage la Prairie
Water Pollution Control Facility Alterations

February, 2002

Manitoba Clean Environment Commission
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1. EXECUTIVE SUMMARY

In December 2001 and January 2002 the Manitoba Clean Environment Commission conducted a public hearing to receive comments on two Environment Act License proposals.

The first was a new license proposal from Simplot Canada Limited for the construction and operation of a potato processing plant. The second was from the City of Portage la Prairie for alterations to its Water Pollution Control Facility for treatment of the Simplot Canada plant's effluent.

The Commission held four days of hearings and heard presentations on behalf of many interested parties who attended and asked questions of the proponents and various government officials. Panel members reviewed the extensive documentation that was made available prior to and during the hearings, and questioned the presenters in order to draw out all relevant information and views.

The recommendations and observations contained in this report serve as advice from the Commission to the Minister of Conservation regarding the two proposals.

The Commission has recommended the issuance of the license requested by Simplot Canada Limited, noting the company's strong commitment to operate with due regard to environmental sustainability.

The Commission has also recommended that the City of Portage la Prairie Water Pollution Control facility be permitted the license alteration it has requested. In this instance, the Commission has proposed that certain conditions be met and other initiatives be undertaken to deal with perceived risks and to mitigate environmental impacts.

The Commission recommended that phosphorus removal should be initiated, and that this reduction in Portage la Prairie's effluent should be consistent with measures already taken by other prairie cities.

The Commission also recommended that the facility's ammonia concentration be limited at current levels, and that monitoring for ammonia, phenols and acute lethality of the effluent be maintained.

A recommendation for continued "participant funding" for future Commission hearings was included.

Among the Commission's twelve observations, it was noted that future nutrient removal requirements should be anticipated, and that communities should adopt water conservation programs across Manitoba.

The Commission suggests that a regional pilot project for the Assiniboine basin should be considered in order to demonstrate how a watershed authority could operate to improve water management.

The report also advises that project proposals for Environment Act licensing should specifically include First Nations considerations and directly address the points contained in Manitoba's Sustainable Development Principles and Guidelines.

Other observations included the need for monitoring and enforcement of water licenses and the encouragement of more extensive metering of water use.

2. INTRODUCTION

Simplot Canada Limited has proposed building a potato processing plant to manufacture French fries and pre-formed food products in Manitoba. The plant would be located in a new industrial park within the Rural Municipality of Portage la Prairie, next to the Trans-Canada Highway and just southwest of the City of Portage la Prairie.

In concert with the Simplot proposal, the City of Portage la Prairie has requested an alteration to its current Environment Act License to enable it to increase the capacity of its current Water Pollution Control Facility. Under their proposal the facility would take pre-treated effluent from the Simplot plant to be processed along with waste from existing residential, commercial and industrial sources.

Both proposed projects require a license by the Government of Manitoba under The Environment Act. In view of the integral nature of the two projects, it was determined that they should be reviewed together. In August 2001, Manitoba Conservation posted a notice requesting public comment on the proposals. To facilitate public comment, documentation pertaining to the proposed projects was made available through the Public Registry.

In September 2001, the Minister of Conservation asked the Clean Environment Commission (CEC) to convene a public hearing on the two proposals and provide advice and recommendations on the applications. The Commission advertised to request public submissions and presentations, and then conducted hearings on December 11 and 12, 2001 and January 8 and 9, 2002. In addition to hearing expert and stakeholder views, the Commission panel reviewed the Environmental Impact Statements and other documents and studies.

The *Terms of Reference* to guide the review directed the Commission to examine the ecological, socio-economic, and health impacts of the proposed projects. In addition, the Terms asked the Commission to consider the proposals in light of Manitoba's Principles and Guidelines for Sustainable Development.

This report contains a selected summary of the evidence presented during the public hearing process. The report concludes with advice and recommendations specific to the two license applications under consideration, along with general observations related to broader public policy issues that were raised during the proceedings.

A verbatim transcript of the public hearing, along with a complete record of all filed exhibits is available for review at the Commission offices.

3. HEARING PROCESS AND PUBLIC PARTICIPATION

The role of the Clean Environment Commission is to encourage and facilitate public involvement in matters related to the environment, and to offer advice to the Minister of Conservation respecting environmental issues, including licensing decisions. The Commission is an independent agency of the Government of Manitoba.

In this instance, the Commission was asked to convene a public hearing respecting two development projects requiring licensing under the Environment Act. The two projects, to be considered concurrently, included a proposal submitted by Simplot Canada Limited for the development of a potato processing plant in Portage la Prairie, and an application from the City of Portage la Prairie for alterations to its water pollution control facility.

A panel of Commissioners, consisting of Terry Duguid, Gerard Lecuyer and John Hreno, was formed to conduct the hearing. The panel was guided by the Terms of Reference specified by the Minister, in conjunction with the provisions set out in The Environment Act. The Commission was also guided by the most recent version of the *Principles and Guidelines of Sustainable Development* statement.

These hearings, the first to be conducted by the Commission in five years, included the provision of participant funding under the Participant Assistance Regulation. This regulation facilitates the award of financial assistance to enable participants to conduct research and analysis and make informed contributions to the hearing process.

The Commission served notice of the Minister's request for public hearings on September 29, 2001. On November 10, 2001 the Commission announced that the hearings would convene in Southport, Manitoba on December 11, 2001.

Prior to the convening of the hearing, representations were made to the Commission requesting an extension of the hearing schedule to permit additional time for participants to complete research and analysis and to prepare their submissions. In response, the Commission announced that in addition to the December 11th convening, a second session of the hearing would be scheduled for January 8, 2002, also in Southport, Manitoba.

4. SUMMARY OF SELECTED EVIDENCE

During the course of the hearing and review of the Environmental Impact Assessments and other documents, many important issues were raised. This section provides a description of many, but not all, of the most significant matters that were considered by the Commission, as well as those that arose in written and oral submissions, cross-examination and questioning.

4.1 Potato Processing Plant

Simplot's Environmental Impact Statement (EIS) and explanations by company officials at the hearing provided a clear and coherent description of the ways in which Simplot intends to develop and operate its proposed potato processing plant. In particular, the Company outlined in detail the procedures that will be followed with respect to solid waste management, wastewater treatment and air emissions.

The Company described plans in place for extensive recycling of organic materials throughout the manufacturing process. Innovative practices, such as high-pressure water for peeling potatoes, were outlined in order to demonstrate the Company's commitment to the use of environmentally beneficial processes in all plant operations. The facility, it was explained, would incorporate energy efficiency in its design and operations, including the use of biogas as a fuel source.

During the hearing, the Commission pursued questions with Simplot officials concerning the value of using potato solid waste for conversion into alternative fuels, such as ethanol. The Company responded by suggesting that while the relatively small potato waste output of this plant would not, in itself, be economic for such a project, it might eventually provide a raw material component for an expanded Manitoba ethanol industry.

The Company acknowledged that significant water vapor is vented directly into the atmosphere when the plant is operating. Depending upon weather conditions, the water vapor can dissipate quickly or slowly. The Commission was told that possible fog conditions caused by vapors were investigated through computer modeling, but road icing on the nearby Trans-Canada Highway was not part of that evaluation.

The minimization of energy use was explained thoroughly in the Simplot EIS. It indicated that Simplot intends to work closely with Manitoba Hydro to adapt its operations to local climatic conditions and to implement an aggressive energy conservation program with respect to their use of electricity and natural gas. Company officials suggested that the Portage la Prairie plant would be Simplot's most energy efficient potato processing operation.

Simplot indicated that the physical appearance of the plant site would be enhanced through the use of environmentally sensitive landscaping.

The Company outlined plans for responding to natural disasters such as flooding as well as its protocols for accidents such as chemical spills or wastewater discharge.

4.2 Water Quantity and Supply

The Commission noted the importance of the availability of sufficient water to supply the processing plant's requirements and to serve the supplemental irrigation needs of the region's potato growers.

4.2.1 Estimates and Modeling

Projections for water supply from the Assiniboine River, area aquifers, and several smaller rivers in the region are based on scientifically derived models and current estimates of water volumes. Monitoring and measurement of water conditions in the basin over several decades has provided reliable information about water availability in the area under most conditions, including severe drought. Current estimates and modeling show an overall supply of 70,000 acre feet available for licensing in the region from all sources.

The Commission reviewed the current data regarding water supply in the region and questioned Manitoba government officials and other experts extensively regarding the accuracy of water volume projections for the area. The discussions between the Manitoba government and the City of Winnipeg illustrated to the Commission the value of scientific peer review of water quantity models.

4.2.2 Watershed Approach

The coordination of environmental initiatives on a watershed basis has gained increasing importance. The Assiniboine River is a complex ecosystem with many aspects and components. Dealing with it from a watershed perspective could, for example, enable more comprehensive action on nutrient loading and other water use issues.

The recognition of integrated decision-making solutions for regions and watersheds is reflected in Manitoba Conservation's October 2001 discussion paper on a proposed strategic plan for water. Its suggestions for a new approach should enable the several threads of water quality, conservation and licensing to be woven together more effectively and dealt with on a coherent basis.

The Assiniboine River Management Advisory Board produced an informative July 1995 interim report on river quality and water licensing issues, but that group was formed temporarily and was not intended to take on any implementation role for

the recommendations it made. There is no single authority or organization designated to initiate the watershed-wide conservation projects and river use planning for the Assiniboine River. Responsibility for dealing with issues in the watershed is spread among the three levels of government.

The widespread view expressed in many presentations to the Commission was that there is a lack of coordinated watershed planning and project implementation among levels of government. The tasks involved in water supply, licensing, and conservation efforts, among others, are not undertaken at a meaningful scale to accommodate the overall needs of the Assiniboine River watershed basin.

Effective watershed management would seem to require a new governance structure. For example, it was pointed out during the hearings that experience in Minnesota and elsewhere has shown that basin planning initiatives can be successful. Typically, such initiatives require the establishment of an institution that has both the authority to act and the resources to carry out initiatives at the local level.

4.2.3 Water License Monitoring

The Commission panel was given the impression that there is little monitoring of water licenses. The lack of effective reporting and enforcement mechanisms may be permitting excessive and inappropriate water use. It appears, however, that there is currently no effective means of knowing how serious this situation might be. Much of the licensing of water withdrawal in Manitoba is done on the basis of estimates, with very little actual measurement through water metering.

The current licensing arrangements do not appear to assign any significance to the environmental impact of water use. There seems to be little incentive for irrigators and other water license holders to conserve water.

It was suggested during the hearing that increasing use of water meters would provide a low-cost technology to enable the effective monitoring of actual water consumption by license holders.

4.2.4 Irrigation and Water Use

Growing potatoes typically involves the use of irrigation to ensure timely water applications and to supplement what is otherwise available from rainfall and soil conditions. In fact, the use or installation of irrigation equipment is often a requirement in the contracts between potato producers and purchasers.

Most of the land used for growing potatoes to supply the Simplot plant would be in the Portage la Prairie region, although the specific locations are not known at this time. It is apparent, however, that some potato producers would draw water from the Assiniboine River, while others without ready access to the river would

generally use wells and impounded water. It has been estimated that potato producers in the area would require an estimated 10,000 acre-feet of water from all sources to grow the potatoes required by the Simplot processing plant.

The Government of Manitoba intends to establish the Sustainable Irrigation Program to implement its irrigation development strategy in conjunction with the federal government and the irrigation industry in a ten-year cost-shared program. This program will include the provision of resources to develop improvements such as retention ponds and pumping systems and to enable new water sources to be developed.

The methods of irrigation differ in their efficiency and environmental impact. For instance, there is significant water evaporation and thus greater water consumption when broad spray application methods are used. Pivot irrigation systems that utilize height adjustable sprinkler heads and allow water to be laid in rows are considered more efficient in terms of water consumption. Drip irrigation is the most efficient form of water delivery but is not generally considered practical in Manitoba.

The embracing of best practices in irrigation is crucial for Manitoba's overall water conservation effort. While the sharing of best practices for efficiency is encouraged by the irrigators' industry associations and potato processors, there seems to be scope for further promotion and support by the Government of Manitoba. It was suggested during the hearing that the adoption of provincial guidelines for water conservation in irrigation, as well as the implementation of metering requirements, would be practical measures that should be pursued as soon as possible.

4.2.5 Municipal Water Conservation

While questioning during the proceedings revealed that the City of Portage la Prairie has made some effort towards encouraging water conservation, there is no comprehensive plan to reduce or minimize municipal water use. In fact, the Commission heard that the majority of municipalities in Manitoba have not adopted a formal strategy to encourage or require water conservation.

4.3 Water Quality

Issues related to water quality that arose during the hearing illustrated some of the most significant disagreements among participants and appeared to cause the greatest concern about environmental risk.

4.3.1 Modeling Studies

During the hearing it was reported that three reaches of the Assiniboine River are being studied for the purpose of determining the river's capability to assimilate

point source and *non-point-source* pollution. Water quality assessment was mentioned in a 1994 report by the Clean Environment Commission, and the need for it was reiterated in the 1995 interim report of the Assiniboine River Management Advisory Board.

The Assiniboine River Water Quality Monitoring Study is a multi-year project attempting to determine more accurately the levels of nitrogen and phosphorus at various locations along the watershed. It is also addressing the issues of ammonia concentrations and dissolved oxygen. The Assiniboine River has been parceled into three river reaches for the purpose of this study: Lake of the Prairies to Brandon; Brandon to Portage la Prairie; and Portage la Prairie to Headingley.

The monitoring study is on going, with interim reports of its findings, and the work will continue until the projected final report in early 2005. The study is intended to serve as a basis for Manitoba Conservation to revise its water quality standards, objectives and guidelines. It will also serve as input to the anticipated creation of an Assiniboine River nutrient management plan within the larger framework of a provincial nutrient management plan.

It was argued by some participants at the hearing that a final decision on the Simplot potato processing plant proposal, and the related Portage la Prairie Water Pollution Control Facility upgrade, should be postponed until more results of the various phases of the Assiniboine River study are available for review.

In response to this position, it was suggested that while the monitoring study will provide valuable additional knowledge about the Assiniboine watershed, enough information is already known about the assimilative capacity of the river to allow an informed decision respecting the proposals under review.

4.3.2 Nutrient Loading

It was widely acknowledged in the hearings that the proposed projects would result in the Assiniboine River having higher levels of nitrogen and phosphorus, as well as increased levels of ammonia. The matters of primary debate were about the extent and significance of these effects in terms of risks to human health, fish and other aquatic life.

The Assiniboine River becomes increasingly loaded with nutrients and other compounds as the water moves from Saskatchewan, meandering through southwestern Manitoba, to where it joins the Red River and flows into Lake Winnipeg. Along the way, it accumulates inputs from *point sources*, such as the effluent from the cities of Brandon and Portage la Prairie, as well as *non-point-sources*, such as the run-off from agricultural land and the entry of water from ground sources and streams.

The practice of permitting nutrients to be added to the Assiniboine River is based on the expected levels of tolerance and safety with dilution. This notion of *assimilative capacity* of the river has theoretical and scientific justification, and it underlies the water quality objectives and guidelines for permitting some levels of nutrients to be safely discharged in wastewater effluent.

The presence of high levels of nutrients can lead to observable effects, notably on plant life. For instance, the growth of algae, some strains of which are toxic, is promoted by nutrient loading. When phosphorus and other nutrients are present in excessive amounts, the growth of blue-green algae and odors can become serious localized problems.

4.3.3 Phosphorus and Nitrogen

Manitoba Conservation officials indicated that sufficient evidence is not yet available to serve as a valid basis for any decision to require reductions in the phosphorus or nitrogen levels in effluents entering the Assiniboine River. While acknowledging the presence and levels of both nutrients, they suggested that it is unclear which of the two is the more serious limiting factor and which one, therefore, should receive priority.

Officials from Environment Canada challenged this position and reported that researchers at Fisheries and Oceans Canada have suggested that the levels of phosphorus in the Assiniboine River rival those of Lake Erie more than three decades ago before dramatic action was taken to reduce them.

Environment Canada representatives pointed out that once the Simplot potato processing plant is in operation, the effluent from the Portage la Prairie Water Pollution Control Facility will contain levels of phosphorus that are typical of a city more than ten times the size of Portage la Prairie. This discharge into the Assiniboine River will add to an already considerable phosphorus level built up in the watershed from sources including the City of Brandon wastewater discharges and agricultural run-off.

Environment Canada officials put forward three recommendations: opposing reductions on the Water Pollution Control facility's monitoring frequency; retaining existing ammonia limits; and, requiring phosphorus removal that would involve Water Pollution Control Facility alterations. They suggested that currently available technology would permit phosphorus reductions to one milligram per litre compared to the fourteen to twenty-one milligrams per litre concentrations that are being proposed by the City of Portage la Prairie

Manitoba Conservation suggested that it would be premature to require lower phosphorus limits or invest in equipment for that purpose until it was known which of the two nutrients, nitrogen or phosphorus, was the more serious problem to be mitigated. They stated that the current studies of water quality and

in-stream flows in the Assiniboine River could yield scientific evidence and identify trends that might indicate what nutrient reduction measures should be taken.

Further to this, representatives of the City of Portage la Prairie advised that when the Assiniboine River nutrient management plan is completed, they would agree to license modifications for nutrient removal if the need was demonstrated.

Environment Canada advised that the Canadian Council of Ministers of the Environment (CCME) is working toward a protocol for developing phosphorus guidelines. This process is expected to lead toward the creation of national guidelines for phosphorus removal. Given this situation, it was suggested that the City of Portage la Prairie should include the capability to accommodate phosphorus removal into its design for the upgrading of the Water Pollution Control Facility. It was pointed out that the cost of retrofitting the facility at a later date once new standards are imposed could be considerably higher than would be incurred at this stage of facility development. The addition of a phosphorus removal system at the same time as the currently proposed upgrades was suggested to be a more cost-effective long-term approach.

The Commission was advised that throughout the past decade, phosphorus reduction initiatives have proceeded in other prairie cities, including Regina, Moose Jaw, Saskatoon and Calgary. Those cities have demonstrated that phosphorus removal technology is well developed and readily available. Environment Canada stated that the Portage la Prairie Water Pollution Control Facility is well operated and seemed to be a good candidate to undertake phosphorus removal.

4.3.4 Ammonia

As part of its proposal for alterations to its Water Pollution Control Facility the City of Portage is requesting an increase in its allowable ammonia discharges.

Evidence was presented that identified ammonia as a potentially harmful constituent of municipal wastewater effluent that can affect aquatic organisms. In May 2000, it was declared a toxic substance under the Canadian Environmental Protection Act. In addition, ammonia can act as a nutrient for algae and aquatic plants. Ammonia exists in both ionized (NH4) and un-ionized (NH3) forms, the latter being toxic at very low concentrations.

Participants at the hearing suggested that it would not be appropriate for ammonia discharge limits to be increased, given the nature of the substance. It was further suggested that monitoring and testing protocols for ammonia be maintained.

4.3.5 Dissolved Oxygen

Fish, plants and organic matter within a river system consume dissolved oxygen. The introduction of nutrients or ammonia into a river system can create unsustainable conditions for fish by reducing dissolved oxygen. Testing for levels of oxygen, among other constituents, within the river is one of the methods used to determine water quality.

The Commission received comments on water quality monitoring protocols for the Assiniboine River. It was noted, for example, that the river's testing results are often averaged over long periods when there is wide variation in conditions and, therefore, the results do not necessarily reflect the condition of the river accurately. In addition, it was noted that some data gathering and measurement techniques overlook seasonal variation. It was suggested that there would be considerable value in the measurement of water conditions, both in-river and at the point of effluent release, which more fully capture the extent of the variations.

4.3.6 Discharge Notification

Assiniboine River water quality is of particular interest to the many communities that depend on the river as their source of drinking water. The possibility of upstream contamination remains a perennial concern for these communities.

It was reported that on several occasions, downstream communities were not provided with sufficient or timely notification when accidental discharges into the river have occurred.

In light of the risks involved, it was indicated that downstream water users should be made more immediately aware of water conditions in order to take appropriate measures, and that a more effective notification system is needed.

4.4 In-stream Flow Requirements

The Commission was advised that minimum in-stream flow conditions are required to ensure the ecological integrity of provincial watercourses. While in-stream flow refers primarily to the volume of water moving through the river, it must also account for the concentrations of nutrients and other quality-related features of the water. Minimum in-stream flow requirements must gauge the amount of water that is needed to ensure adequate assimilation of pollutants while still maintaining ecological health.

Manitoba Conservation briefed the Commission on the current monitoring study that is evaluating in-stream flow characteristics of the Assiniboine River. It was explained that the in-stream flow components of the study involve the review of eleven distinct reaches of the river between Lake of the Prairies and Headingley.

Based on the findings of the study more will be known about river conditions, including minimum in-stream flow requirements.

A number of participants asked Manitoba Conservation to state an actual numerical value for in-stream flow requirements for the Assiniboine River. In response, Department officials stated that they did not have an exact number for in-stream flow, however they did advise that a value of 200 cubic-feet-per second had been set as a guideline to meet the City of Winnipeg effluent discharge requirements at Headingley. The Department further stated that in their assessment, in-stream flows were determined to be sufficient to meet both current requirements and the additional needs related to the Simplot Potato Processing Plant proposal.

Manitoba Conservation advised that water from Lake of the Prairies and impounded spring run-off in the region enable water flows along the Assiniboine River to be managed to meet required needs during seasonal extremes. The Department was confident that any additional water from the Lake of the Prairies necessary for irrigation purposes during drought conditions could be accommodated within the current operating parameters of the reservoir and that minimum in-stream flow requirements could be maintained.

During the course of the hearings, the Commission was told about the proposed ecological reserve to protect the clam beds in Beaudry Provincial Park. It was suggested that health of this unique feature of the ecosystem could be affected by changes in Assiniboine River water quality and/or in-stream flow.

4.5 Water Pollution Control Facility Alterations

There have been several amendments to the license of the Portage la Prairie Water Pollution Control Facility over the years. Some of these have been in recognition of the changing technologies it has employed. In other instances, the license changes have been to revise the operating requirements in light of problems.

It was reported that the facility has had a series of odor problems that have affected the surrounding community. While these have been addressed in various ways, there is still concern that odor issues might resurface as a result of the facility's expansion. The performance of the foul air scrubber at the facility has improved after several years of unpredictable performance. Covers being used for anaerobic biosolids storage should also contribute to containing potential odors.

4.5.1 Measurement and Sampling

Comments were received suggesting that because the proposed potato processing plant will add to the total amount of effluent to be treated by the Water Pollution Control Facility, and in view of the fact that the alterations to the facility may affect the consistency and reliability of its operations, current sampling protocols should remain in place. Once the facility operations have normalized, a review of sampling procedures should be considered.

One group of compounds, phenols, are currently specified in terms of limits within the water pollution control license. For the purpose of establishing consistency with other municipalities, it was requested that the phenol limit be removed as a license requirement. Some argued, however, that the presence of phenols and the uncertainty about their origin in the treatment plant's effluent remains a cause for concern, and that there should be a continuation of monitoring and reporting.

4.5.2 Implementing Nutrient Reduction

Evidence was submitted suggesting that the establishment of integrated planning and conservation efforts inherently recognize the need for a sharing of the financial obligations across watersheds. While Portage la Prairie is a significant contributor of phosphorus to the Assiniboine River, Brandon also contributes to the problem. Non-point sources in Saskatchewan and Manitoba also add phosphorus.

Therefore, as there is no single cause of the problem, a joint mitigation effort is necessary. It was suggested that a cost-sharing arrangement between the federal, provincial, and the municipal governments involved, would be essential in the development of an integrated effort to address the challenge of nutrient reduction.

4.6 Process Matters

In the course of carrying out its review, the Commission learned of a number of issues related to the environmental assessment and approval process that several participants felt warranted improvement.

4.6.1 First Nations Involvement

Questions asked during the proceedings indicated that the proponents and Manitoba Conservation did not fully consider First Nations' issues. It was observed, for example, that the documents filed by Manitoba Conservation did not refer to the legal obligation for consultation with First Nations on the potential impacts of the proposed projects. In addition, it was pointed out that the advice documents provided to the proponents by Manitoba Conservation did not convey

the expectation that the proponents would conduct a thorough consultation process with affected First Nations.

4.6.2 Participant Assistance Program

Concerns were raised about the timing of decisions on the implementation and subsequent awarding of financial assistance under the Participant Assistance Regulation.

4.6.3 Access to Information

Prior to the commencement of the formal proceedings and on several ocassions during the hearing, requests for documentation were presented for the Commission's consideration. In all cases, the argument was made that the availability of information is critical to effective public participation in the environmental assessment process. It was suggested that restrictive or limited access to information and relevant documentation greatly compromises the ability of participants to prepare and present comprehensive research and analysis during the review process.

While the Commission chose not to use its subpoena power in these hearings to require the production of documents, the Commission encouraged and succeeded in obtaining the voluntary release of some of the material that was sought by participants.

4.6.4 Guidelines and Advice Documents

During the proceedings, the Commission became aware that certain "advice documents" provided to the proponent by the Approvals Branch of Manitoba Conservation were not made available to the public for comment. It was suggested to the Commission that some of the documents in question were not filed in the Public Registry, even though doing so would have allowed the public to comment in a manner that might well have been of benefit to the Approvals Branch.

It was argued that in the interests of fostering more open dialogue and public input into development proposals, as well as clarifying expectations of involvement in the process, Manitoba Conservation officials should consider formalizing more extensive public involvement procedures in the preparation phase of Environmental Impact Assessments. The public release of all information should be the norm and exceptions should require a clear justification.

4.6.5 Climate Change

Some participants suggested that proponents and the Government of Manitoba should consider the impact that climate change will have on the viability and sustainability of proposed projects.

In reviewing the current proposals, it was noted that as trends in weather severity and precipitation shift, prevailing assumptions about water availability and growing seasons might change dramatically. It was noted that the lack of climate change criteria in the assumptions underpinning the provincial government's water modeling calculations illustrate this shortcoming.

The point was made that the consideration of climate change should be specifically required within the process of conducting each Environmental Impact Assessment. Furthermore, it was argued that the new methods of incorporating climate change assumptions and trend analysis into water modeling should be adopted by the Government of Manitoba.

4.6.6 Precautionary Approach

Environment Canada officials introduced the concept of the *precautionary approach* to environmental management. It was explained that this approach, sometimes referred to as the "precautionary principle", recognizes that the absence of full scientific knowledge or absolute certainty should not be used as an excuse for inaction when a project or activity poses an environmental risk.

The precautionary approach was referenced by federal government authorities that argued for the immediate introduction of nutrient removal requirements as a part of the licensing for the two proposals under review. It was suggested that delaying such action in favour of further study was unnecessary and would be contrary to the approach articulated by the precautionary principle.

4.6.7 Sustainable Development Criteria

It was suggested by various participants that while the proponents referenced sustainable development practices, the environmental assessment documents did not reflect or present information in a manner that could be clearly linked to the Manitoba Principles and Guidelines for Sustainable Development.

Evidence filed during the hearing included the new *Manitoba Sustainable Development Financial Management Guidelines*. Questions were raised as to whether or not these *Guidelines* had been followed during the assessment of the two proposals currently under review.

5. LICENSE SPECIFIC RECOMMENDATIONS

5.1 The Commission recommends that an Environment Act License for the proposed Simplot Canada Limited potato processing plant be issued.

The Commission recognizes the strong commitment made by Simplot Canada Limited to operate with due regard to environmental sustainability.

5.2 The Commission recommends that the Trans Canada Highway adjacent to the plant be monitored to determine if water vapor emissions from the plant are affecting the surface of the roadway or visibility.

The Commission is concerned that driving conditions on the roadway adjacent to the plant might be compromised, particularly during colder weather, if water vapor from the plant reduces visibility or creates an icy road surface.

5.3 The Commission recommends that the proposed license alterations for the City of Portage La Prairie Water Pollution Control Facility upgrade and biosolid utilization program (including the amendment for a single waste activated sludge treatment facility) as well as the Rural Municipality of Portage La Prairie pumping station and forcemain be approved subject to the following four conditions:

5.3.1 Phosphorous removal should be required to levels consistent with those established in other prairie cities including Regina, Moose Jaw, Saskatoon and Calgary.

Scientific evidence suggests that eutrophication of surface waters in Southern Manitoba, including Lake Winnipeg, is a developing problem. Phosphorous, which is cumulative in ecosystems, is a principle contributor to the eutrophication process. The Commission understands that phosphorous can be easily removed from effluent using readily available technology. Cost-sharing arrangements between various levels of government and Simplot would ensure that the financial burden of this initiative does not fall to municipal government alone.

5.3.2 Ammonia limits for the Water Pollution Control Facility should remain at the existing licensed levels.

Ammonia at higher concentrations can be toxic to aquatic life. Increases in the allowable ammonia discharges could increase the risk of impacts to aquatic species.

5.3.3 Phenol limits should be removed from the existing license, however, monitoring for these compounds should continue.

Phenol limits seem to be unique to the Portage Water Pollution Control Facility license. This revision would bring the Portage facility in line with the license conditions of other municipalities.

Monitoring should continue in order to ensure that any increase in phenol levels would be detected.

5.3.4 Sampling to monitor for acute lethality of the effluent should continue as a monthly testing requirement.

The additional effluent from the Simplot plant will require the introduction of additional treatment capacity at the Water Pollution Control Facility. It would be prudent to maintain the current monthly testing until such time as the alterations are completed and the plant is performing consistently.

6. OTHER RECOMMENDATIONS

6.1 The Commission recommends that participant assistance programs be continued as part of the environmental assessment review process and that funding under such programs be awarded so as to permit sufficient time for recipients to utilize these resources in an effective manner.

The Commission believes that providing adequate time for participants to prepare research and conduct analysis will improve the quality of the information presented during the hearing process.

7. OBSERVATIONS

Although not necessarily specific to the Simplot license application and the Portage La Prairie Water Pollution Control Facility license alterations, the following observations are provided by the Commission for consideration by the proponents, the Government of Manitoba and other organizations as appropriate.

7.1 The design of the proposed alterations to the Water Pollution Control Facility should anticipate provisions for the addition of advanced nutrient removal capabilities, other than phosphorous.

Provisions for further nutrient removal would be in addition to the initial introduction of phosphorous removal. Advanced nutrient removal requirements are foreseen once new national guidelines are implemented and an Assiniboine River nutrient management plan is developed.

7.2 Sampling to determine dissolved oxygen should be undertaken on a more frequent basis in the Assiniboine River.

The validity of water testing protocols, particularly the timing and averaging of results to determine dissolved oxygen in the Assiniboine River was questioned. Some research indicates far more variation than what is suggested by the current sampling methods.

7.3 The establishment of a pilot project demonstrating how a regional watershed authority could work as a mechanism to address water quantity and quality issues should be considered for a portion of the Assiniboine basin.

A watershed authority, if provided with sufficient resources, could take direct action in identifying gaps in water monitoring protocols and in regulatory enforcement. In addition, such an authority could assist in cooperative efforts aimed at improving water management in the river basin. Experience in the United States has shown this approach to be effective.

7.4 Municipal water conservation programs should be formally developed and embraced by Portage la Prairie and all communities operating domestic municipal water systems in the Assiniboine Basin.

The availability of water for future uses requires a more concerted effort at the municipal level to ensure efficient use of this resource.

7.5 Projects undertaken under the proposed Sustainable Irrigation Program should be linked to best management practices, particularly with respect to water conservation.

Projects supported by the Program should demonstrate environmental sustainability in terms of ensuring future water supplies and meeting immediate water requirements. The development of education and outreach activities that encourage irrigators to adopt innovative practices and share experiences should be a priority of the program.

7.6 More extensive metering by water license holders should be encouraged.

The Manitoba Government should encourage the use of flow meters or other devices to determine the actual volume of water used by license holders. Such measures would provide valuable information about water consumption, and enable producers to demonstrate the results of water conservation efforts.

7.7 Monitoring and enforcement of water licenses is required for effective management of water resources.

Sufficient human and financial resources are needed for a more effective inspection and reporting system.

7.8 A notification system is needed to alert downstream water users of changes in water conditions along the Assiniboine River.

An effective protocol would advise when sudden discharges from treatment plants or other sources might affect downstream water quality.

7.9 The Government of Manitoba should incorporate climate change considerations into water modeling and forecasting.

The integration of climate change into water modeling and forecasting is essential to determine future water availability because of expected changes to precipitation and seasonal temperatures.

7.10 The need for protection of clam beds in the proposed ecological reserve in Beaudry Provincial Park should be considered in the future Assiniboine River nutrient management plan.

The possibility of an ecological reserve designation makes it all the more important to ensure the identification and, where necessary, the mitigation of nutrients, ammonia, dissolved oxygen, and pesticide levels, in addition to providing sufficient in-stream flows for this area.

7.11 There should be a specific provision for the consideration of First Nation's interests as well as the examination of the implications of both traditional use and treaty rights in all Environment Act development proposals.

There is a legal obligation to consult with First Nations to ensure the consideration of treaty rights and traditional use. Traditional knowledge from First Nation communities can also provide vital information to the environmental assessment process.

7.12 Sustainable Development Principles and Guidelines and Manitoba's Sustainable Development Financial Management Guidelines need to be addressed in all Environment Act Licensing proposals in a systematic manner.

With regard to specific developments, proponents should be required to respond to these principles and guidelines in a point-by-point manner. Such an approach would allow for a clear assessment of the proponent's understanding and commitment to sustainable practices and principles.

8. APPENDICES

8.1 Terms of Reference

Terms of Reference for Clean Environment Commission Hearings on the Simplot Canada Ltd. Potato Processing Plant Proposal and the City of Portage la Prairie Water Pollution Control Facility Alteration Proposal

BACKGROUND

On July 17, 2001, Simplot Canada Ltd. (Simplot) submitted an Environment Act Proposal and Environmental Impact Statement for the construction and operation of a potato processing plant to be located in the Rural Municipality of Portage la Prairie. On July 17, 2001, the City of Portage la Prairie and the Rural Municipality of Portage la Prairie (the City) submitted an Environment Act Proposal and Environmental Impact Statement for the construction of a wastewater forcemain and alteration of the Portage la Prairie Water Pollution Control Facility.

MANDATE OF THE HEARINGS

The Clean Environment Commission shall conduct public hearings to consider the Simplot Potato Processing Plant Proposal and the City Forcemain and Water Pollution Control Facility Alteration Proposal, and to receive public comments and concerns respecting the Proposals. Following the hearings, the Clean Environment Commission shall provide a report to the Minister of Conservation pursuant to Section 7(3) of The Environment Act. The Commission may at any time request that the Minister of Conservation review or clarify these Terms of Reference.

SCOPE OF THE REVIEW

The Clean Environment Commission is to consider the proposal and public concerns and provide a recommendation on

- whether an Environment Act Licence should be issued respecting the Simplot Potato Processing Plant Proposal and a revised Environment Act Licence should be issued respecting the City Forcemain and Water Pollution Control Facility Alteration Proposal.

Should the Commission recommend issuance of Licences, then appropriate recommendations should be included in the report respecting

- the potential environmental impacts of the construction and operation of the proposed potato processing plant and water pollution control facility alteration on the
  - biophysical environment;
  - quality of the water and downstream uses of the Assiniboine River; and
  - the minimum instream flow needs of the Assiniboine River as a result of the projected withdrawal of water from the river for irrigation purposes;
- socioeconomic, social, cultural and health impacts directly related to the environmental impacts of the Proposals;
- measures proposed to mitigate any adverse impacts resulting from the Proposals and, where appropriate, to manage any residual adverse effects; and
- monitoring and research which may be recommended in relation to the water quality and modeling study of the Assiniboine River from Portage la Prairie to Headingley proposed in the City Forcemain and Water Pollution Control Facility Alteration Proposal.

The Clean Environment Commission recommendations shall incorporate, consider and directly reflect, where appropriate, the Principles of Sustainable Development and Guidelines for Sustainable Development as contained in *Sustainable Development Strategy for Manitoba.*

8.2 Principles and Guidelines for Sustainable Development

PRINCIPLES AND GUIDELINES OF SUSTAINABLE DEVELOPMENT

Established under *The Sustainable Development Act*, 1998

Principles:

Integration of Environmental and Economic Decisions

1(1) Economic decisions should adequately reflect environmental, human health and social effects.
1(2) Environmental and health initiatives should adequately take into account economic, human health and social consequences.

Stewardship

2(1) The economy, the environment, human health and social well-being should be managed for the equal benefit of present and future generations.
2(2) Manitobans are caretakers of the economy, the environment, human health and social well-being for the benefit of present and future generations.
2(3) Today's decisions are to be balanced with tomorrow's effects.

Shared Responsibility and Understanding

3(1) Manitobans should acknowledge responsibility for sustaining the economy, the environment, human health and social well-being, with each being accountable for decisions and actions in a spirit of partnership and open cooperation.
3(2) Manitobans share a common economic, physical and social environment.
3(3) Manitobans should understand and respect differing economic and social views, values, traditions and aspirations.
3(4) Manitobans should consider the aspirations, needs and views of the people of the various geographical regions and ethnic groups in Manitoba, including Aboriginal peoples, to facilitate equitable management of Manitoba's common resources.

Prevention

4 Manitobans should anticipate, and prevent or mitigate, significant adverse economic, environmental, human health and social effects of decisions and actions, having particular careful regard to decisions whose impacts are not entirely certain but which, on reasonable and well-informed grounds, appear to pose serious threats to the economy, the environment, human health and social well-being.

Conservation and Enhancement

5 Manitobans should
(a) maintain the ecological processes, biological diversity and life-support systems of the environment;
(b) harvest renewable resources on a sustainable yield basis;
(c) make wise and efficient use of renewable and non-renewable resources; and
(d) enhance the long-term productive capability, quality and capacity of natural ecosystem.

Rehabilitation and Reclamation
6 Manitobans should
(a) endeavour to repair damage to or degradation of the environment; and
(b) consider the need for rehabilitation and reclamation in future decisions and actions.

Global Responsibility
7 Manitobans should think globally when acting locally, recognizing that there is economic, ecological and social interdependence among provinces and nations, and working cooperatively, within Canada and internationally, to integrate economic, environmental, human health and social factors in decision-making while developing comprehensive and equitable solutions to problems.

Guidelines:

Efficient Use of Resources - which means
(a) encouraging and facilitating development and application of systems for proper resource pricing, demand management and resource allocation together with incentives to encourage efficient use of resources; and
(b) employing full-cost accounting to provide better information for decision makers.

Public Participation - which means
(a) establishing forums which encourage and provide opportunity for consultation and meaningful participation in decision-making processes by Manitobans;
(b) endeavouring to provide due process, prior notification and appropriate and timely redress for those adversely affected by decisions and actions; and
(c) striving to achieve consensus amongst citizens with regard to decisions affecting them.

Access to Information - which means
(a) encouraging and facilitating the improvement and refinement of economic, environmental, human health and social information; and
(b) promoting the opportunity for equal and timely access to information by all Manitobans.

Integrated Decision Making and Planning - which means
encouraging and facilitating decision making and planning processes that are efficient, timely, accountable and cross-sectoral and which incorporate an inter-generational perspective of future needs and consequences.

Waste Minimization and Substitution - which means
(a) encouraging and promoting the development and use of substitutes for scarce resources where such substitutes are both environmentally sound and economically viable; and
(b) reducing, reusing, recycling and recovering the products of society.

Research and Innovation - which means
encouraging and assisting the researching, development, application and sharing of knowledge and technologies which further our economic, environmental, human health and social well-being.

8.3 List of Registered Participants

Adamson, Robert	Gladstone/Westbourne Economic Development Committee
Bodnaruk, Ray	Manitoba Conservation
Bowering, Rick	Manitoba Conservation
Braden, Kelly	City of Portage la Prairie
Briscoe, Barry	Environment Canada
Burland, Siobhan	Manitoba Conservation
Chambers, Patricia	Environment Canada
Christoffersen, Helen	Private
Cloonan, Joan	Simplot Canada Limited
Clubb, Lindy	Joint Group
Dalmyn, Ron	Provincial Coalition for Responsible Resource Management
Fisch, Rick	Simplot Canada Limited
Geisel, Blair	Keystone Vegetable Producers
Grubb, Stu	Joint Group
Harrison, John	Portage la Prairie School Division #24
Hart, Bryan	Joint Group
Hunt, Joel	Manitoba Conservation
Kattenberg, David	Joint Group
Knight, Jim	Rural Municipality of Portage la Prairie
Koroluk, Glen	Joint Group
Lipnowski, Irwin	Joint Group
Locke, Richard	Oakville and District Chamber of Commerce
Lyle, Dale	City of Portage la Prairie
McGill, Ken	Manitoba Conservation
McGinn, Rod	Joint Group
McKenzie, Ian	City of Portage la Prairie
McKernan, Mike	TetrES Consultants Representing McCains Foods Ltd
Metcalf, Barb	South Norfolk, Treherne Economic Development Committee
Murray, Kathy	Joint Group
Omichinski, Dave	Portage and District Chamber of Commerce
Paton, Bill	Joint Group
Peterson, Doug	Earth Tech
Roteliuk, Ron	Central Plains Inc.
Schneider-Viera, Frederike	North South Consultants
Sigurdson, Ken	Joint Group
Smallwood, Doug	Association of Irrigators in Manitoba
Starmer, Graham	Manitoba Chamber of Commerce
Strachan, Larry	Manitoba Conservation
Suderman, Steve	Private
Szoke, Nicholas	City of Winnipeg
Tait, Fred	Joint Group
Tarr, Clare	Village of MacGregor
Thompson, Lorimer	Manitoba Conservation

Trimble, Toby	Rural Municipality of Portage la Prairie
Van den Bosch, Mike	Manitoba Conservation
Vogel, Chris	Manitoba Conservation
Westall, Herold	Central Plains Inc.
Whelan-Enns, Gaile	Joint Group
Williamson, Dwight	Manitoba Conservation
Wishart, Ian	Central Manitoba Irrigators Association

8.4 List of Exhibits

1.	Letter dated August 29, 2001 from the Hon. Oscar Lathlin, Minster of Conservation, to Terry Duguid, Chairman of the Clean Environment Commission.
2.	Letter dated October 10, 2001 from the Hon. Oscar Lathlin, Minster of Conservation, to Terry Duguid, Chairman of the Clean Environment Commission.
3.	Terms of Reference for the Clean Environment Hearings on the Simplot Canada Limited Potato Processing Plant Proposal and the City of Portage la Prairie Water Pollution Control Facility Alteraltion Proposal.
4.	Submission to the Clean Environment Hearing: Simplot Potato Processing Plant, City of Portage la Prairie Water Pollution Control Facility Alteration. Submitted by Siobhan Burland, Environmental Approvals, Manitoba Conservation.
5.	Presentation "Slides". Submitted by Rick Fisch, Simplot Canada, Joan Cloonan, Simplot Canada Ltd. and Doug Peterson, EarthTech.
6.	Environmental Act Proposal Form and Supporting Documentation for Licensing of the Simplot Canada Limited's Potato Processing Plant at Portage la Prairie, Manitoba: Prepared for J.R. Simplot by Earth Tech (Canada) Inc. Submitted by Rick Fisch, Simplot Canada Ltd.
7.	Supporting Reports for: Environment Act Proposal Form and Supporting Documentation for Licensing of the Simplot Canada Limited's Potato Processing Plant at Portage la Prairie, Manitoba: Prepared by Earth Tech (Canada) Inc. Submitted by Rick Fisch, Simplot Canada Ltd.
8.	Rural Municipality of Portage la Prairie Presentation to the Clean Environment Commission Regarding the Proposed Simplot Canada Limited Potato Processing Plant, Portage la Prairie, Manitoba. Submitted by Jim Knight, Rural Municipality of Portage la Prairie.
9.	Presentation to the Manitoba Clean Environment Commission, December 11, 2001 by Mayor Ian MacKenzie , on behalf of the City of Portage la Prairie. Submitted by Ian MacKenzie, City of Portage la Prairie.
10.	Presentation "Slides". Submitted by Kelly Braden, City of Portage la Prairie.
11.	Presentation "Slides". Submitteed by Frederike Schneider-Viera, North/South Consultants Inc.
12.	Presentation "Slides". Submitted by Doug Peterson, Earth Tech Inc.
13.	Environment Act Notice of Alteration and Supporting Documentation for the City of Portage la Prairie Water Pollution Control Facility Upgrading and Biosolid Utilization Program and Rural Municipality of Portage la Prairie Pumping Station and Forcecmain. Prepared for the City of Portage la Prairie by Earth Tech (Canada) Inc., July 2001. Submitted by Ian MacKenzie, City of Portage la Prairie and Jim Knight, Rural Municipality of Portage la Prairie.
14.	City of Portage la Prairie Water Supply Main, Wastewater Forcemain Functional Design Report. Prepared for the City of Portage la Prairie Project No. WE 201 00 WE, April 2001, by Cochrane Engineering Ltd. . Submitted by Ian MacKenzie, City of Portage la Prairie and Jim Knight, Rural Municipality of Portage la Prairie.

15.	The City of Portage la Prairie Water Pollution Control Facility Upgrade Preliminary Design Report Prepared for the City of Portage la Prairie by Earth Tech (Canada) Inc., July 2001. . Submitted by Ian MacKenzie, City of Portage la Prairie and Jim Knight, Rural Municipality of Portage la Prairie.
16.	Presentation "Outline". Clean Environment Commission Public Hearings Proposal for Simplot Canada Ltd. Potato Processing Plant and Expansion of City of Portage la Prairie Water Pollution Control Facility. Submitted by Chris Vogel, Manitoba Conservation.
17.	Presenation "Slides". Submitted by Ray Bodnaruk, Manitoba Conservation.
18.	Province of Manitoba Submission to the Clean Environment Commission, Simplot Potato Processing Plant, City of Portage la Prairie Water Pollution Control Facility Alteration. Submitted by Chris Vogel, Manitoba Conservation.
19.	"Errata" Province of Manitoba Submission to the Clean Environment Commission, Simplot Potato Processing Plant, City of Portage la Prairie Water Pollution Control Facility Alteration. Submitted by Chris Vogel, Manitoba Conservation.
20.	Assessment of Soil Conditions and Landscape Features for Irrigation Suitability and Potential Environmental Impact for South Central and South Western Manitoba. Submitted by K. S. (Ken) McGill,, Agriculture and Food Manitoba.
21.	Suitability of Land for Irrigated Potato Production in Selected Areas for Southern Manitoba. Submitted by K. S. (Ken) McGill, Agriculture and Food Manitoba.
22.	Manitoba Agriculture and Food Soil Resource and Climate Information, Climatic Information for Potatoes in Manitoba, November 2001: Produced in Co-operation with Manitoba Agriculture and Food, Agriculture Resources Section, Environment Canada, Atmospheric Services, University of Manitoba, Faculty of Agriculture abd Food Sciences. Submitted by K. S. (Ken) McGill, Agriculture and Food Manitoba.
23.	Manitoba Sustainable Irrigation Development, A Discussion Paper: Manitoba Agriculture and Food, November 2001. Submitted by K. S. (Ken) McGill, Agriculture and Food Manitoba.
24.	"Motion". Submitted by Glen Koroluk, Joint Participant Group.
25.	Letter, dated November 29, 2001, from Glen Koroluk, Joint Participant Group, to Terry Duguid, Chairman, Clean Environment Commission, Hon. Oscar Lathlin, Minister of Conservation, Mr. Nick Carter, Participant Assistance Committee.
26.	Representation to the Manitoba Clean Environment Public Hearing Respecting a Proposal Submitted by Simplot Canada Limited, for the Development and Operation of a Potato Processing Plant and a Wastewater Pre-treatment Facility in the Rural Municipality of Portage la Prairie. Submitted by Dave Ominchinski, Portage la Priairie and District Chamber of Commerce.
27.	Environment Canada Submission to the Clean Environment Commission Panel Hearings on the J.R. Simplot Potato Processing Plant and City of Portage la Prairie Water Pollution Control Facility Alterations, Southport, MB., Dec. 12, 2001. Submitted by Barrie Briscoe, Environment Canada.
28.	Nutrients and Their Impact on the Canadian Environment, Government of Canada. Submitted by Barrie Briscoe, Environment Canada.
29.	Presentation "Slides". Submitted by Barrie Briscoe, Environment Canada.
30.	Letter, dated November 23, 2001 John J. Harrison, Portage la Prairie School Division #24. Submitted by John J. Harrison, Portage la Prairie School Division #24.

31.	Presentation of the Association of Irrigators in Manitoba. Submitted by Doug Smallwood, Association of Irrigators in Manitoba.
32.	1999 Manitoba Irrigation Survey Sponsored by: The Association of Irrigators in Manitoba: Compiled by Gaia Consulting, July 2000. Submitted by Doug Smallwood, Association of Irrigators in Manitoba.
33.	Letter, dated November 30, 2001 from Clare Tarr, MacGregor and District Chamber of Commerce. Submitted by Clare Tarr, MacGregor & District Chamber of Commerce.
34.	CMIA Presentation to CEC Re: Simplot Application Submitted by Ian Wishart, Central Manitoba Irrigators Association.
35.	Letter, undated, from the Oakville and District Chamber of Commerce. Submitted by Richard Locke, Oakville and District Chamber of Commerce.
36.	Letter dated December 12, 2001 from Michael McKernan, TetrES Consultants Inc. , to Terry Duguid, Manitoba Clean Environment Commission.
37.	Letter dated December 14, 2001 from Terry Duguid, Manitoba Clean Environment Commission, to Glen Koroluk, Joint Group.
38.	Letter dated December 14, 2001 from Larry Strachan, Manitoba Conservation, to Rory Grewar, Manitoba Clean Environment Commission.
39.	Letter dated December 17, 2001 from Terry Duguid, Manitoba Clean Environment Commission, to Glen Koroluk, Joint Group.
40.	Letter dated December 20, 2001 Glen Koroluk, Joint Group, to Terry Duguid, Manitoba Clean Enviornment Commission.
41.	Letter dated December 28, 2001 from Terry Duguid, Manitoba Clean Environment Commission, to Glen Koroluk, Joint Group.
42.	Statement. "Shellmouth Dam Consolidation Agreement". Submitted by Larry Strachan, Manitoba Conservation.
43.	Presentation. "Evaluation of Sustainable Expansion of the Manitoba Processing Potato Industry". Submitted by Blair Geisel, Keystone Vegetable Producers Association.
44.	Presentation "Slides". Submitted by Blair Geisel, Keystone Vegetable Producers Association.
45.	Presentation to the Manitoba Clean Environment Commission Respecting the Proposed Simplot Canada Limited Potato Processing Ploant Portage La Prairie, Manitoba. Submitted by Ron Roteliuk, Central Plains Inc.
46.	"An Overview of the Pembina Valley Water Supply Plan (s) and Related Matters". The Central Plains Water Task Force, Central Plains Inc. June 3, 1993. Submitted by Glen Koroluk, Joint Group.
47.	Presentation "Slides" for Exhibit #45. Submitted by Ron Roteliuk, Central Plains Inc.
48.	The Manitoba Chamber of Commerce Presentation to the Manitoba Clean Environment Commission January 8, 2002 Respecting the Proposal Submitted by Simplot Canada Limited for the Development and Operation of a Potato Processing Plant and a Wastewater Pre-treatment Facility in the Rural Municipality of Portage la Prairie. Submitted by Graham Starmer, Manitoba Chamber of Commerce.
49.	Report to the Clean Environment Commission Hearings Concerning the Establishment of the Simplot Potato Processing Plant and the Expansion of the City of Portage la Prairie Water Pollution Control Facility. CWP Limited Partnership and The Cartier Regional Water Coop. January 2002. Submitted by Alf Poetker, CWP Limited Partnership.
50.	Industrial Agreement. The City of Portage la Prairie and McCain Foods Canada. April 18, 1996. Submitted by Larry Strachan, Manitoba Conservation.

51.	Operating Agreement. The City of Portage la Prairie and McCain Foods Canada. April 18, 1996. Submitted by Larry Strachan, Manitoba Conservation.
52.	Presentation "Slides". "Assiniboine River Modeling Study - Brandon to Portage la Prairie Reach". Earth Tech Canada Inc. and North South Consultants Inc. Submitted by Frederike Schneider-Viera, North South Consultants Inc.
53.	Letter dated December 20, 2000 from David Hatch, Ecological Reserves Advisory Committee, Manitoba Conservation to the Honourable Oscar Lathlin, Minister of Conservation. Submitted by Gaile Whelan Enns, Joint Group.
54.	Presentation. "Chronology of Events and Overview of the Environmental Assessment Process". Submitted by Glen Koroluk, Joint Group.
55.	Presentation. "Climate Change and Potato Processing". Submitted by David Kattenburg, Joint Group.
56.	Presentation. "Economic Aspects and Policy Issues Relating to the Application by J. R. Simplot Company to Construct a Greenfield Potato Processing Plant in Poplar Bluff Industrial Park R.M. of Portage La Prairie". Submitted by Irwin Lipnowski, Joint Group.
57.	Presentation. "National Farmers Union Region 5 (Manitoba) Report to the Manitoba Clean Environment Commission on the Simplot Potato Processing Plant Proposed for Portage la Prairie". Submitted by Fred Tait and Ken Sigurdson, Joint Group.
58.	Presentation. "Potential Cumulative Impacts to Surface and Groundwater (Quality and Quantity) with Recommendations for Mitigation (Best Management Practices and River Planning)". Submitted by Stuart Grubb, Joint Group.
59.	Presentation. "Addressing In-Stream Flow Requirements, Water Suply, Wter Demand and Climate Change in the Brandon to Portage la Prairie Agriculatural Region". Submitted by R. A. McGinn, Joint Group.
60.	Letter, dated January 7, 2002, from The Village of MacGregor. Submitted by Clare Tarr, Village of MacGregor.
61.	Presentation. "Presentation to the Clean Environment Commission Re: Simplot Potato Processing Plant, Portage la Prairie, MB". Submitted by Steve Suderman.
62.	Presentation. "Presentation to the CEC Re: Simplot Potato, January 9, 2002". Submitted by Ron Dalmyn, Provincial Coalition for Responsible Resource Management.
63.	Presentation. "South Norfolk-Treherne Community Development Corporation Presentation to the Manitoba Clean Environment Commission, January 9, 2002, Southport, Manitoba". Submitted by Barb Metcalf, South Norfolk-Treherne Community Development Corporation.
64.	Presentation. "City of Winnipeg - Water and Waste Department Submission to Clean Environment Commission Re: Simplot Potato Processing Plant". Submitted by Nicholas Szoke, City of Winnipeg.
65.	Presentation. "Submission to Clean Environment Commission Hearings Re: Simplot Canada Ltd. Potato Processing Plant Proposal". Submitted by Robert Adamson, Gladstone-Westbourne Economic Development Committee.
66.	Presentation. Submitted by Helen Christoffersen.
67.	Presentation. "CEC Hearings Submission - Simplot's Potato Plant, The Give and Take of Industry". Submitted by Lindy Clubb, Joint Group.
67-A.	"Erosion Control". May 1999. Submitted by Lindy Clubb, Joint Group.
67-B.	"Sediment & Nutrients". Deerwood Soil and Water Management Association. Submitted by Lindy Clubb, Joint Group.

67-C.	"NewsToUse". December/ Vol. 9 No. 4. Submitted by Lindy Clubb, Joint Group.
67-D.	"Conference Summary: Second International Conference on the recovery of phosphorus from sewage and animal wastes". Noordwijkerhout, the Netherlands, 12 & 13 March, 2001. Submitted by Lindy Clubb, Joint Group.
67-E.	"Proceedings of the National Nutrients Workshop". 5NR Nutrients Science/Policy Working Goup, Ottawa, Ontario. Submitted by Lindy Clubb, Joint Group.
68.	Presentation. Submitted by Bryan Hart, Joint Group.
68-A.	"The 1969 Master Agreement on Apportionment" January, 2000. Submitted by Bryan Hart, Joint Group.
68-B.	"Water Use and Allocation: 1999 Public Consultation: Summary and Conclusions". Manitoba Conservation. Submitted by Bryan Hart, Joint Group.
68-C.	Map. Submitted by Bryan Hart, Joint Group.
69.	Presentation. "Issues with Proposed Wastewater Treatment Facilities and Biosolids Program. Submitted by Bill Paton, Joint Group.
70.	Presentation. "Consequences of Potato Production on Groundwater Quality in Manitoba". Submitted by Bill Paton, Joint Group.
71.	Presentation. "In-Stream Flow Needs and the Biota". Submitted by Bill Paton, Joint Group.
72.	Inadequacy of Current Data Base on Water Quality Issues and Impacts on the Assiniboine River". Submitted by Bill Paton, Joint Group.
73.	Presentation "Slides". "Nutrient Management Strategy: Preliminary Results with Focus on the Assiniboine River and Lake Winnipeg". Submitted by Dwight Williamson, Manitoba Conservation.
74.	"Long-Term Trends in Total Nitrogen and Total Phosphorus Concentrations in Manitoba Streams." Geoff Jones & Nicole Armstrong. November 2001. Submitted by Dwight Williamson, Manitoba Conservation.
75.	"Manitoba's Sustainable Development Financial Management Guidelines". Submitted by Glen Koroluk, Joint Group.